European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC)

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive from January 2013 to December 2018

Supporting documentation for the conservation status assessment for the habitat:

H8240 - Limestone pavements

ENGLAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	UK (England information only)
1.2 Habitat code	8240 - Limestone pavements

2. Maps

2.1 Year or period	2007-2018

2.3 Distribution map Yes

2.3 Distribution map Method used Complete survey or a statistically robust estimate

2.4 Additional maps

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs

3.2 Sources of information

Atlantic (ATL)

BACKSHALL, J., MANLEY, J., REBANE, M. 2001. Chapter 10: Crags, scree and limestone pavement. In: The Upland Management Handbook. English Nature, Peterborough.TURAL ENGLAND. 2008. Chapter 3.9 Inland Rock. In: State of the Natural Environment 2008. Natural England.

ORANGE, A. 2008. Saxicolous lichen and bryophyte communities in Upland Britain. JNCC Report No: 404.

WARD, S.D & EVANS, D.F. 1976. Conservation assessment of British limestone pavements based on floristic criteria. Biological Conservation, 9, 217-233. http://www.limestone-pavements.org.uk/

http://www.lakelandwildlife.co.uk/biodiversity/pdfs/Rock habitats 100121 finished.pdf

Webb, S. 2013. Limestone Pavements, Chapter 5, pg 93-110 in Caves and Karst of the Yorkshire Dales, Eds: Waltham T and Lowe, D. British Cave Research Association.

4. Range

- 4.2 Short-term trend Period
- 4.3 Short-term trend Direction

- 4.9 Long-term trend Method used
- 4.10 Favourable reference range

- Stable (0)
- a) Minimum

b) Maximum

b) Maximum

- a) Minimum
- a) Area (km²)
- b) Operator
- c) Unknown No
- d) Method
- No change

The change is mainly due to:

- 4.1 Surface area (in km²)
- 4.4 Short-term trend Magnitude
- 4.5 Short-term trend Method used
- 4.6 Long-term trend Period
- 4.7 Long-term trend Direction
- 4.8 Long-term trend Magnitude
- 4.11 Change and reason for change in surface area of range

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

4.12 Additional information

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5.	Area	covere	ea by	habitat

5.1 Year or period 2007-2018

5.2 Surface area (in km²) a) Minimum 19.78 b) Maximum 19.78 c) Best single 19.78

value

5.3 Type of estimate 95% confidence interval

5.4 Surface area Method used Complete survey or a statistically robust estimate

5.5 Short-term trend Period 2007-2018 5.6 Short-term trend Direction Stable (0)

5.7 Short-term trend Magnitude a) Minimum b) Maximum c) Confidence

interval

5.8 Short-term trend Method used Complete survey or a statistically robust estimate

5.10 Long-term trend Direction 5.11 Long-term trend Magnitude a) Minimum b) Maximum c) Confidence

interval

5.12 Long-term trend Method used 5.13 Favourable reference area a) Area (km²)

b) Operator

c) Unknown No

d) Method

5.14 Change and reason for change No change in surface area of range

The change is mainly due to:

5.15 Additional information

5.9 Long-term trend Period

6. Structure and functions

6.1 Condition of habitat a) Area in good condition Minimum 3.05 Maximum 3.05

(km²)

b) Area in not-good Minimum 13.78 Maximum 13.78

condition (km²)

c) Area where condition is Minimum 2.95 Maximum 2.95

not known (km²)

Increasing (+)

6.2 Condition of habitat Method Complete survey or a statistically robust estimate

6.3 Short-term trend of habitat area in good condition Period

2007-2018

6.4 Short-term trend of habitat area in good condition Direction

6.5 Short-term trend of habitat area in good condition Method used

6.6 Typical species

used

6.7 Typical species Method used

6.8 Additional information

Complete survey or a statistically robust estimate

Has the list of typical species changed in comparison to the previous

reporting period?

7. Main pressures and threats

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

7.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	Н
Mixed source air pollution, air-borne pollutants (J03)	M
Extraction of minerals (e.g. rock, metal ores, gravel, sand, shell) (C01)	M
Other invasive alien species (other then species of Union concern) (IO2)	M
Problematic native species (I04)	Н
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (LO2)	M
Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	Н
Mixed source air pollution, air-borne pollutants (J03)	M
Extraction of minerals (e.g. rock, metal ores, gravel, sand,	M
shell) (C01)	
Other invasive alien species (other then species of Union concern) (IO2)	M
Other invasive alien species (other then species of Union	M H

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
8.2 Main purpose of the measures taken	Restore the habitat of the species (related to 'Habitat for the species')	
8.3 Location of the measures taken	Both inside and outside Natura 2000	
8.4 Response to the measures	Medium-term results (within the nex	kt two reporting periods, 2019-2030)
8.5 List of main conservation measures		

Adapt mowing, grazing and other equivalent agricultural activities (CA05)

Reduce impact of mixed source pollution (CJ01)

Adapt/manage extraction of non-energy resources (CC01)

Management of problematic native species (CI05)

Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)

Management, control or eradication of other invasive alien species (Cl03)

8.6 Additional information

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

9. Future prospects

- 9.1 Future prospects of parameters
- a) Range
- b) Area
- c) Structure and functions
- 9.2 Additional information

10. Conclusions

- 10.1. Range
- 10.2. Area
- 10.3. Specific structure and functions
- (incl. typical species)
- 10.4. Future prospects
- 10.5 Overall assessment of
- **Conservation Status**
- 10.6 Overall trend in Conservation
- Status
- 10.7 Change and reasons for change in conservation status and conservation status trend
- a) Overall assessment of conservation status

No change

The change is mainly due to:

b) Overall trend in conservation status

No change

The change is mainly due to:

10.8 Additional information

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/marine region)

a) Minimum 1.12b) Maximum 1.12

c) Best single value 1.12

11.2 Type of estimate

11.3 Surface area of the habitat type inside the network Method used

11.4 Short-term trend of habitat area in good condition within the network Direction

11.5 Short-term trend of habitat area in good condition within network Method used

11.6 Additional information

Best estimate

Complete survey or a statistically robust estimate

Increasing (+)

Complete survey or a statistically robust estimate

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

Distribution Map

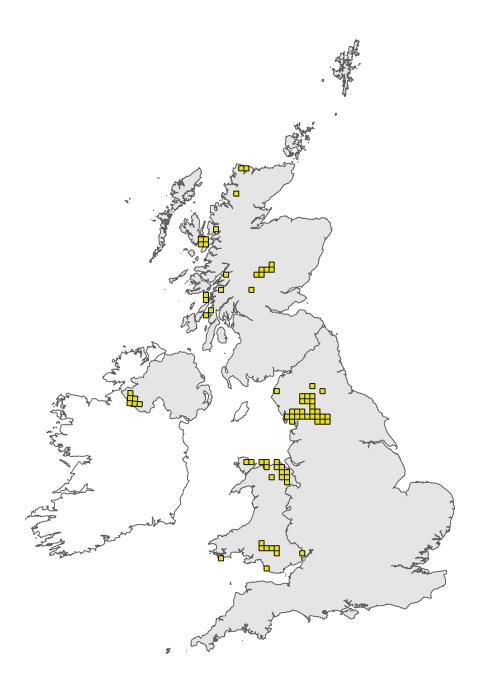


Figure 1: UK distribution map for H8240 - Limestone pavements. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

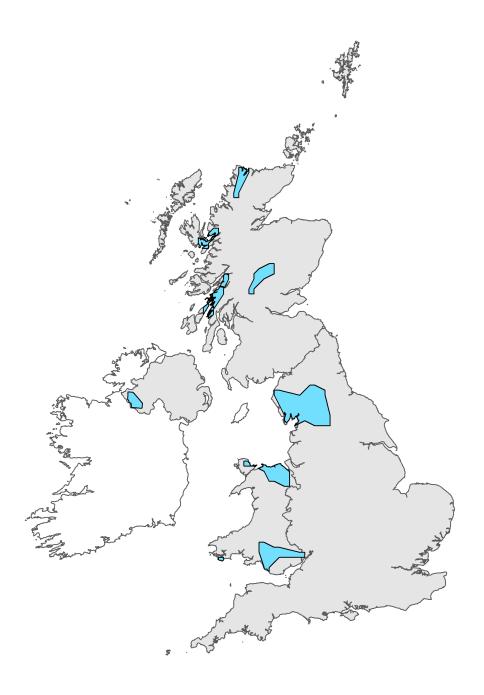


Figure 2: UK range map for H8240 - Limestone pavements. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 8240	
Field label	Note
2.2 Distribution map	2013 UK Habitat Data
Habitat code: 8240 Region co	de: ATL
Field label	Note
4.1 Surface area	Based upon Condition Data and 2012 Reporting Data
4.3 Short term trend; Direction	Based upon Condition Data and 2012 Reporting Data
4.3 Short term trend; Direction	Based upon Condition Data and 2012 Reporting Data
4.10 Favourable reference range	Based upon Condition Data and 2012 Reporting Data
5.1 Year or period	2007-2018
5.2 Surface area	Based upon Condition Data and 2012 Reporting Data
6.1 Condition of habitat	Based upon Condition Data and 2012 Reporting Data
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	Based upon Condition Data and 2012 Reporting Data